Final Report: Finding of No Historic Properties Affected
Siemens Industry Inc. Facility, Parker, AZ
National Historic Preservation Act Section 106 Review
May 25, 2012

1. Introduction

This report summarizes the findings made by the U.S. Environmental Protection Agency Region 9 ("EPA") in conducting a National Historic Preservation Act ("NHPA") Section 106 review of the Resource Conservation and Recovery Act ("RCRA") hazardous waste permitting action at the Siemens Industry, Inc. ("Siemens") facility located in Parker, Arizona. EPA considers this permitting process to be a federal undertaking under which the Section 106 review is mandated, pursuant to NHPA regulations at 36 C.F.R. § 800.16(y).

2. Background

Since 1992, Siemens has operated a carbon reactivation plant in Parker, Arizona on the Colorado River Indian Tribes ("CRIT") Reservation in La Paz County. At the facility, Siemens uses thermal treatment to regenerate spent carbon so that it may be reused. Annually, Siemens receives about 5,000 tons of spent carbon from 30 - 35 states from across the United States. Less than 15% of this material is considered hazardous waste under RCRA.

2.1 Description of Federal Action

EPA is responsible for regulating waste treatment facilities on tribal lands that handle RCRA-regulated hazardous wastes to ensure that facilities comply with federal regulations and, ultimately, that no unreasonable risks are posed to human health and the environment; one means to achieve these goals is through the permitting process.

Although the Siemens facility has not yet been issued an EPA permit, it is currently operating under 'interim status' conditions which allow facilities to legally operate until a permit decision has been reached on a permit application. The original RCRA Permit application was submitted to EPA in 1995 and, although a permit has not yet been issued, EPA has conducted several inspections of the facility since then. EPA is currently reviewing the facility's application in preparation for proposing a draft permit decision. The issuance of a permit would not bring about any major changes in the current facility operations and the waste streams received at the facility, nor would it involve any ground disturbance or new construction.

2.2 Facility Location

The Siemens facility is located at 2523 Mutahar Street, Parker, AZ 95344, in an undeveloped parcel of land just southeast of Parker. In geographic coordinates this is 34° 07' 55.25" N, and 114° 16' 19.86 W. For general reference, the following figures depict a map of the facility location (Figure 2-1), facility area photographs (Figure 2-2), and a facility photograph (Figure 2-3).

Figure 2-1. *Facility Location*

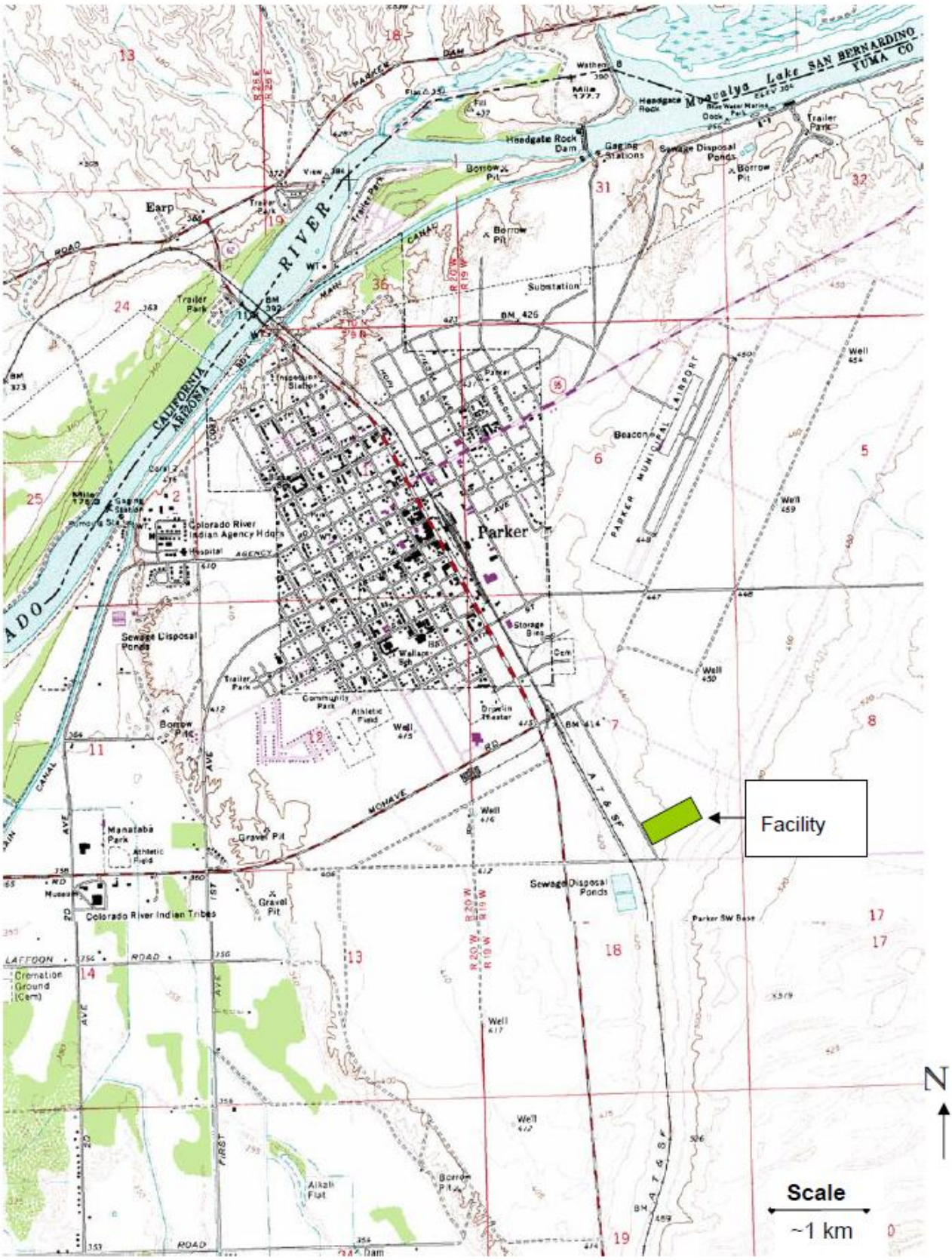


Figure 2-2. *Facility Area Photographs*

Figure 2-3. *Photograph of Facility*

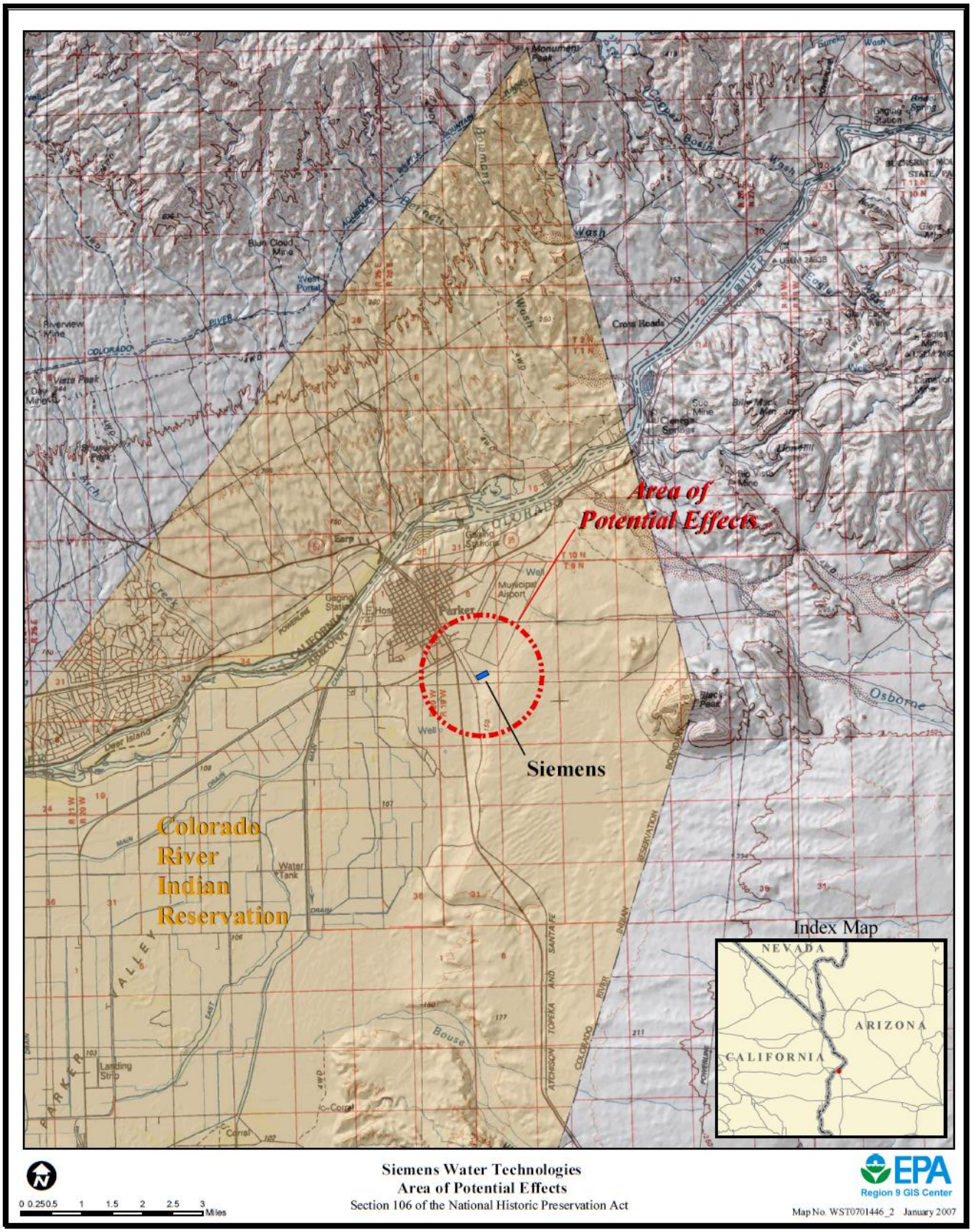
2.3 Area of Potential Effects

As discussed in a February 28, 2012 EPA letter to the Arizona State Historic Preservation Office ("SHPO"), EPA has established a one-mile-radius circle around the facility as the Area of Potential Effects ("APE"). The APE is defined in 36 C.F.R. § 800.16(d) as:

> *"the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking."*

A recommendation for a one-mile-radius APE was submitted in February 2006 by former Colorado River Indian Tribes ("CRIT") Museum Director Dr. Michael Tsosie, who was designated as the NHPA point of contact for the Tribe to EPA. EPA designated the one-mile-radius Area of Potential Effect in a January 2007 Public Notice. This area is denoted in Figure 2-4 below by the dotted red circle around the facility.

Figure 2-4. *Designated Area of Potential Effect (Dotted Red circle)*



2.4 Section 106 Review History at Siemens

EPA initiated the NHPA Section 106 Review Process in late 2003, meeting with then CRIT Chairman Daniel Eddy, Arizona State Historic Preservation Officer ("SHPO") James Garrison, Town of Parker Mayor D. L. Wilson, and representatives from Siemens. These four parties are consulting parties for this Section 106 review; EPA also invited the Advisory Council on Historic Preservation, 12 Indian Tribes, and 6 additional parties, all of whom declined to participate as consulting parties. A list of these parties is provided in Appendix A. Chairman Eddy designated the CRIT Museum Director as the main point of contact for CRIT regarding the NHPA process. A timeline has been included in Appendix B for a summary of the steps that EPA has taken during this process.

3. Search for Historic Properties

The following sections summarize EPA's actions in searching for historic or tribal culturally significant properties within the APE. Historic locations identified or considered are shown in Figure 3-1.

3.1 Site Walk-Over in 1989

In 1989, an Archaeologic Walk-Over of the Facility area was performed by Weldon Johnson, Sr., Assistant Director of the CRIT Museum as part of an Environmental Assessment for the not-yet constructed Westates Carbon facility. A copy of this document, as well as supplemental letters by the office of the Colorado River Agency of the Bureau of Indian Affairs and the Arizona SHPO's office, is attached in Appendix C. In summary, neither a records search of the CRIT Museum's archaeological files nor an archaeologic walk-over revealed any historic sites at that time.

3.2 Public Comment Periods in 2006 and 2007

EPA reached out to the public regarding the NHPA process via public notices and public comment periods in 2006 and 2007. The first public comment period, which ran from May 31, 2006 to September 1, 2006, solicited comments on the proposed APE. The second comment period ran from January 31, 2007 to April 12, 2007, and requested information on Historic Properties. The public notice for this second public comment period can be found in Appendix D.

None of the comments received during either comment period identified any specific historic properties within the APE. Nevertheless, EPA is addressing the substantive issues raised in the public comments through this document.

A number of comments questioned whether the APE was too small. Most of these comments focused on the fact that the APE did not include Black Peak, which is a little over four miles west of the Siemens facility. The comments described the significance of Black Peak and other mountains to the traditional Mohave peoples in this area, and incorporated the idea that *all* land is sacred.

Although the comments focused on Black Peak itself as a culturally significant property, *EPA has considered any areas within the APE where Black Peak may be viewed or from whence prayers to Black Peak may be directed in considering areas within the APE that may be historic or culturally significant properties*. Effectively, this means that EPA has assessed the potential impacts of the permit decision on the entire APE, not only specific locations of known historic properties. EPA believes that this approach to evaluating the potential impacts of the permit decision would also apply to locations outside the APE.

3.3 National Register of Historic Places Database Search

On August 16, 2011, a search of the National Register of Historic Places Database was performed. Three sites were found in the vicinity of the facility:

- Midvale Archaeological Site (#85003430) - east of Chandler, AZ in Town 1 South, Range 7 East
- The Old Presbyterian Mission Church (#71000122) - 2nd Avenue in Parker, AZ
- The Parker Jail (#75000369) - North side of Agency Road in Pop Harvey Park, Parker, AZ

However, none of these sites are within the APE. Further information about the locations of these sites may be confidential and will not be disclosed on a map.

3.4 AZSITE Search (Arizona's Cultural Resource Inventory)

Through email correspondence dated September 7, 2011, Erick Laurila of the Arizona SHPO's office helped to identify a historic road alignment in the vicinity of the facility using AZSITE (Arizona's Cultural Resource Inventory). Near Parker, this road, Historic Route 72 ("SR-72"), is now known as State Route 95, and at its closest point passes approximately one-third of a mile from the facility. An Arizona Department of Transportation information sheet for SR-72 has been attached in Appendix E. This part of the route, as described in the information sheet, is approximately 12 miles south of the facility on State Route 95. To qualify the road segment as a contributing resource to the historic significance of the alignment, the road near the facility would need to retain sufficient historical integrity to convey significance under any of the National Register criteria. EPA's assessment of this road segment was accomplished using Google Maps Street View, and can be found with photographs in Attachment E. In Figure 3-1 on the following page, the road is denoted by the yellow line running from Parker, south through the APE.

EPA concludes that the SR-95 is *not* eligible for inclusion in the National Register since the historic integrity, specifically the setting and feeling of the road segment near the facility, is no longer intact – the road has been paved into a four-lane route with power lines and it accommodates an estimated daily traffic of approximately 6,300 vehicles.[1]

3.5 Parker Cemetery

Through correspondence with the former CRIT Museum Director E. George Ray and Doug Bonamici of the CRIT Attorney General's office in August 2011, the Parker Cemetery was identified as a potential historic property within the APE. The Parker Cemetery is located approximately 2/3 of a mile from the Siemens facility and 3/10 of a mile northeast of California Avenue along Mohave Road, in Parker, AZ. Though not listed in the National Register of Historic Places, a cemetery may be considered a historic property for the purposes of the NHPA process if it meets the 'Criteria Consideration' conditions as described in National Register Bulletin 41 and stated in 36 C.F.R. §800.4(c)(1). A discussion of the qualifying characteristics of the Parker Cemetery is in the following Section 3.5.1.

[1] Arizona. Department of Transportation. *LA PAZ COUNTY Planning Assistance for Rural Areas, Working Paper 1, Current Conditions*. Lima and Associates, 2009. Figure 29, Page 90. Web. <http://www.azdot.gov/mpd/systems_planning/PDF/PARA/lapaz/LaPazWorkingPaper1CurrentConditions.pdf>.

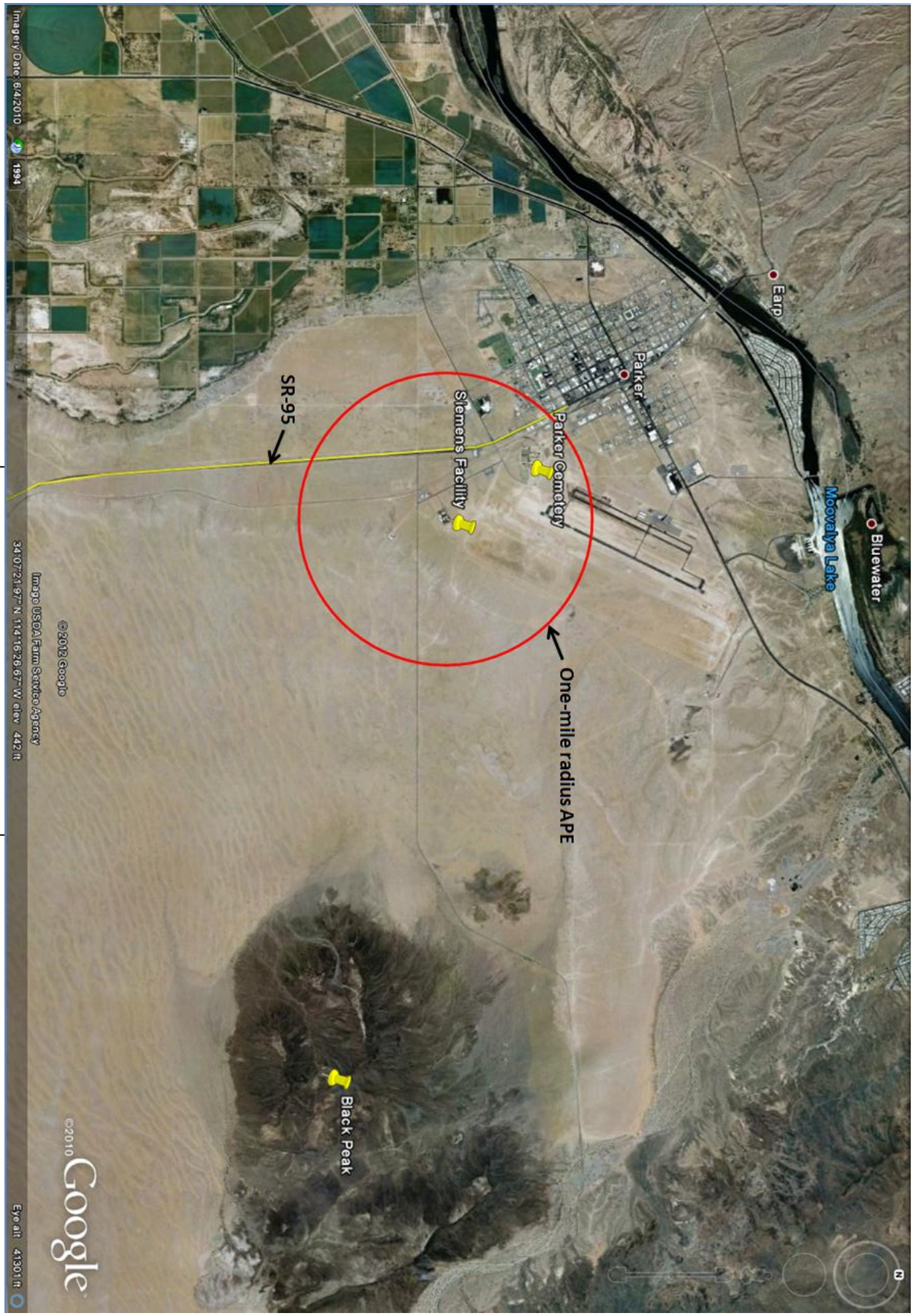


Figure 3-1. *Identified Historic Properties*

3.5.1 Assessment of Parker Cemetery under National Register Criteria Considerations

According to a phone conversation with the Parker Town Clerk on July 27, 2011, the cemetery is approximately as old as the town, which was incorporated in 1948. In assessing the Parker Cemetery for the Criteria Considerations, EPA elicited the assistance of CRIT due to potential sensitivity issues and confidentiality concerns that may arise from researching burial sites. As described in an August 29, 2011 email, Mr. Ray and Mr. Bonamici of CRIT performed an archival search for the Parker Cemetery and confirmed that Navajo Code Talkers from World War II are buried at the site. Thus, EPA, in consultation with CRIT, has determined that the cemetery may be eligible under Criterion A or B:

Properties can be eligible for the National Register if they are *'associated with events that have made a significant contribution to the broad patterns of our history'* or *'associated with the lives of persons significant in our past.'*

While further archival research is necessary to formally determine the eligibility of the Parker Cemetery under this Criterion, EPA has decided to leave the Cemetery unevaluated, due to the aforementioned sensitivity concerns. For the purposes of moving forward with the Section 106 Review, EPA has *assumed* that the Parker Cemetery is eligible for the National Register, and has assessed possible effects of the permitting project on that property.

4. Evaluation of Potential Effects on Historic Properties

This section provides a discussion of EPA's efforts to evaluate the potential effects of EPA's permit decision on identified historic properties within the APE. Within the context of the Section 106 review, EPA considers the following to be historic properties and/or properties of traditional religious and cultural importance:

- Parker Cemetery
- All areas within the APE where Black Peak may be viewed or from whence prayers may be directed to Black Peak

In this evaluation, EPA has only considered those effects that could be attributable to EPA's permit decision, and not included the impacts of facility operations which are not dependent on that decision. Thus, the scope of the federal action must be taken into account by first defining what the permit decision will entail:

- the permit decision *will* determine whether or not the facility can accept and treat certain wastes classified under RCRA as hazardous waste
- the issuance of a permit *will not* allow for any new construction or ground disturbing activities without further review
- the facility *will* be able to continue operations whether or not EPA grants a RCRA permit to the facility

With this understanding of the project scope, the Agency assessed concerns raised through public comments as well as comments received at public meetings.

These comments raised concerns that the facility could potentially obstruct views of sacred mountains, thus interfering with traditional rites such as prayer ceremonies and cremations, through the following possible effects from the facility:

(1) the sounds of the Siemens facility's operations
(2) the visual presence of the facility
(3) hazardous air emissions from the facility

An evaluation of these effects follows in the sections below.

4.1 Sounds of the Siemens Facility's Operations and the Visual Presence of the Facility

Background: The Agency acknowledges that the presence of the facility could have a potential adverse impact on a tribal member's ability to pray or otherwise exercise the members' religion in close proximity to the facility. However, EPA's decision would not make a difference whether the facility remains standing or not, only whether it can handle specific wastes. Similarly, a decision not to issue a permit would not require that Siemens cease all operations at the facility, but only the management of hazardous waste it received from off-site facilities. Operations involving materials which do not constitute hazardous waste could continue or begin and, since there would be no anticipated change in equipment for facility operation with or without a permit, sounds from operations would not be affected.

Finding: At no location in the APE, including the Parker Cemetery and *any* areas within the APE where Black Peak may be viewed or from whence prayers may be directed towards Black Peak, will the visual or auditory impacts of the facility be affected by the permit decision.

4.2 Presence of Chemicals in Facility Emissions

Background: Based on the comments received, some community members appear to be concerned that hazardous air emissions from the facility will interfere with Tribal spiritual practices and cultural beliefs. In evaluating facility emissions, EPA's first and foremost priority is to protect human health and the environment; through the permitting process, EPA works towards this goal by ensuring the safe handling of hazardous materials at industrial facilities. With respect to the Siemens facility, EPA has taken the additional steps of evaluating the emissions from the facility and reviewing a human health and ecological risk assessment based on those emissions. The Agency has concluded that the facility operations, including emissions, will not pose an unacceptable risk to either. However, EPA has also evaluated the concern that *any* hazardous air emissions will interfere with spiritual and religious practices, regardless of their impact on human health or the environment.

The Agency recognizes that some individuals' religious beliefs and practices may be adversely affected by the emission of any chemicals from the facility, even if such emissions pose little or no risk to human health in the environment. Thus the question becomes: Would a denial of the permit, along with the continued processing of waste not classified as 'hazardous,' eliminate the presence of chemical constituents from the facility emissions? The simple answer is no. EPA anticipates that, if the agency were to deny Siemens a hazardous waste permit, chemicals would still be released in the facility's emissions. This straightforward but admittedly unsatisfying answer partially stems from the nature of chemicals which may be considered hazardous or toxic at one concentration and not hazardous or toxic at another. For example, the chemical benzene, below a certain concentration, is not considered RCRA hazardous waste. However, regardless of its concentration, benzene remains a potentially offensive

chemical compound. Similarly, whether or not the permit is issued to Siemens, both incoming waste streams and the facility emissions will likely still contain similar chemicals.

Finding: EPA's permit action will not, in and of itself, have a discrete impact on the spiritual or religious practices of tribal members in the vicinity of the facility.

4.3 Facility Emissions at Parker Cemetery

Background: EPA has assessed potential impacts of facility emissions on the Parker Cemetery. After researching air emissions impacts on cemeteries, EPA has decided that sulfur and nitrogen oxides ("SOx and NOx") are the only chemicals in the facility emissions that have the potential to impact cemeteries over time. In general, SOx and NOx have been known to cause acid weathering of tombstone/memorial lettering and engravings. Both SOx and NOx are emitted during combustion processes (such as those at the facility), and major sources usually include gas-powered vehicles such as cars and trucks as well as coal-fired power plants.

Using conservative assumptions, EPA estimates that total SOx and NOx deposition rates at the cemetery due to facility emissions are two orders of magnitude lower than those attributable to other sources, such as car emissions on Hwy 95 south of the facility. Data supporting this finding was based on a 2005 emissions test at Siemens in which air dispersion and deposition models were developed and NOx and SOx emissions (in addition to 168 other chemical constituents) were measured.

Furthermore, EPA has determined that the release of SOx and NOx from the facility through stack emissions is determined by the sulfur or nitrogen content of incoming waste streams. However, the presence and/or concentration of these two compounds in the waste does *not* determine the RCRA hazardous or non-hazardous classification of the waste, nor does it correlate with such a classification. Thus, whether or not the permit is denied, the facility could continue operating and SOx and NOx emissions rates would not be affected by the permit decision.

Finding: Deposition of SOx and NOx at the Parker Cemetery due to facility emissions is insignificant when compared to other local sources. More importantly, EPA does not believe that the issuance of a RCRA permit will result in an increase in emissions of SOx and NOx above what would be released were the permit to be denied.

5.0 Conclusion

With assistance from public comments and through efforts of its own, EPA has identified possible effects of the facility on historic properties including visual and auditory impacts, as well as the impacts stemming from the presence of hazardous constituents and acid-generating chemicals in its emissions. However, EPA has narrowed its evaluation of potential effects on historic properties to the scope of the permit action: a permit decision will not affect facility operations except in the waste streams handled, nor allow for construction or ground-disturbing activities at the site.

In this context, EPA is making a finding, pursuant to 36 C.F.R. § 800.4(d)(1), that a permit decision relating to Siemens' management of RCRA Hazardous Waste will have No Effect on Historic Properties.